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Command History for 1991

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Annette V. Stout

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Command History for 1991

Annette V. Stout

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Navy Personnel Research and Development Center
San Diego, California 92152-6800

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13. ABSTRACT (Maximum 200 words)

This report lists Navy Personnel Research and Development Center's 1991 philosophy, mission, vision, goals, functions, organization, commanding officer/technical director biographies, key personnel, chronology of events, history of the Center, resources (financial, personnel, facilities), research and development program, and publications and presentations.

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Introduction

Mission

To conduct research and development (R&D) to improve the performance of individuals, teams, and organizations within the Navy and Marine Corps. To provide products and services specifically directed at improving Department of the Navy (DON) personnel planning, testing, acquisition, selection, classification, training, utilization, motivation, organization, management, and other contemporary issues.

Philosophy

We believe people are the most valuable resource of the Navy and Marine Corps. People have the unique capability to take action based on objectives and values in rapidly changing environments. We believe, therefore, that improving the ability of people to perform their assigned tasks is necessary to maximize the effectiveness of weapon systems. Moreover, we believe our efforts will improve the quality of service life and the effectiveness of manpower, personnel, training (MPT), and organizational systems and result in a more effective naval force.

Vision

For the Navy and the Marine Corps, the current decade will be the beginning of an era of new missions, changing force structure, and shifting priorities. Each Service will prepare itself to be ready at all times to conduct a large number of varied operations in potentially hostile environments. New capabilities and technologies will be developed to meet the challenges of these new responsibilities and threats. Of critical importance will be the continuing need to attract and retain a professional personnel force of the very brightest and most capable young people in the nation.

Through this period and beyond, we see the Navy Personnel Research and Development Center (NPRDC) continuing to grow in leadership and influence as the Navy and the Marine Corps' principal center for MPT and organizational systems R&D. We will be recognized for our innovation, initiative, the teamwork of our people, and our ability to anticipate and effectively respond to change.

Our principal value will continue to be in the products and services we provide. As an integral part of the Navy and Marine Corps family, we are motivated and able to seek out and solve the most important Navy and Marine Corps problems within our mission area. We are committed to developing close working relationships with our sponsors and customers and to meeting their needs in a timely, cost-efficient, scientifically valid manner.

Our major strength will continue to be our staff whose talents cover a broad range of technical disciplines. We are proud of the research scientists who, along with member of the support staff, contribute so much to enhancing the Center's reputation within the operational and scientific communities. We will build on this strength by developing and expanding the skills of the present staff and hiring new individuals as needed to respond effectively to a wide variety of Navy and Marine Corps problems and opportunities.

As a R&D activity, we will continue to fulfill our responsibility to identify and test the applicability of current and emerging scientific technologies to the solution of Navy and Marine Corps MPT and organization systems problems. We will strive to maintain our recognized expertise in the core technologies associated with manpower modeling; ability, interest, and attitude measurement; instructional design; organizational evaluation; and quality management. At the same time, we will develop new technologies in these areas.

In pursuing this vision, we will strive for continuous improvement in the quality of our internal operations and in the products and services we provide. We will establish meaningful, measurable goals and procedures for assessing progress in attaining them. We will recognize and reward the contributions of our staff. We will remain open to change and flexible in setting future directions and strategies. We are confident that these actions, in total, will assure our continued role in helping to build a stronger and more effective Navy and Marine Corps.

Goals

1. Design and develop MPT and organizational systems products and services that significantly enhance the ability of the Navy and Marine Corps to carry out their missions.

2. Attract, develop, and retain talented and motivated personnel through Center policies and practices that foster and reward proactive behavior, teamwork, communication, trust, risk taking, and innovation.

3. Conduct a technology base program (i.e., basic research, exploratory development, and advanced technology demonstrations) to meet Navy and Marine Corps personnel and operational requirements and to maintain scientific and technical leadership in MPT and organizational systems areas.

4. Maintain in-house scientific expertise and corporate knowledge to ensure technological innovation, "smart buyer" assistance, and real-world understanding of MPT and organizational systems requirements.

5. Anticipate future needs of NPRDC sponsors and customers and meet them through use of appropriate technology, prioritization of R&D requirements, and by facilitating transition of products into operational use.

6. Seek continuous improvement in the quality of NPRDC products and services, and the way they are applied to naval systems.

Functions

1. Plans and develops effective MPT and organizational systems products and services for Navy and Marine Corps operational application. Provides technical assistance to support the transition and implementation of Center products.

2. Develops and maintains in-house Navy and Marine Corps scientific and technical expertise to provide corporate knowledge, corporate memory, technological innovation, "smart buyer" assistance, and real-world understanding necessary for the development and support of Navy and Marine Corps MPT and organizational systems.

3. Plans and conducts an effective technology base program (basic research, exploratory development, and advanced technology demonstrations) to meet existing and projected operational requirements and to maintain scientific and technical leadership in MPT and organizational areas.

4. Develops new systems and methods for determining manpower requirements, allocating manpower resources, developing personnel inventories, and distributing/assigning those inventories to improve military readiness and control costs.

5. Develops new systems and procedures for recruiting, selecting, classifying, and utilizing officer, enlisted, and civilian personnel to improve performance, satisfaction, and retention.

6. Serves as the Chief of Naval Personnel's primary resource to coordinate and conduct personnel surveys in the Navy and to develop new survey methodology for the Navy and Marine Corps.

7. Develops and evaluates personnel testing systems, and computerized adaptive testing versions of the Armed Services Vocational Aptitude Battery (CAT-ASVAB). Serves as Lead Department of Defense (DOD) R&D laboratory for overall management of CAT research, development, implementation, and scientific support of the system.

8. Develops training technologies to enhance personnel readiness.

9. Employs existing and emerging technologies in the development and application of training systems to alleviate Navy and Marine Corps training problems and improve the Navy's operational readiness.

10. Develops and evaluates innovative management and leadership systems for improving the effectiveness and readiness of Navy and Marine Corps personnel and organizations.

11. Develops and evaluates innovative motivation and reward systems for improving the efficiency and effectiveness of Navy and Marine Corps personnel and organizations.

12. Develops and evaluates educational material on innovative management and leadership systems for Navy and Marine Corps personnel and organizations.

13. Develops methods, procedures, and instruments for assessing the effectiveness and efficiency of management and leadership practices in Navy and Marine Corps organizations.

14. Develops, evaluates, and applies innovative personnel assessment technology.

15. Provides independent analyses, technical advice, and consultation to research, development, test, and evaluation (RDT&E) and operational managers in matters related to the Center's mission.

16. Investigates, defines, and addresses operational problems related to fleet personnel performance.

17. Maintains a field office in Washington, DC for the purpose of conducting on-site projects.

18. Develops, installs, and provides life-cycle support for information management systems.

19. Provides information and reports to higher authority and the scientific community on the progress and accomplishments of the Center's program.

20. Provides technical support in the development of the Chief of Naval Personnel's long range plan with regard to the infusion of appropriate technology, definition and prioritization of RDT&E requirements and the transition of products into operational use.

21. Provides information and technical support to the Center's Bureau of Naval Personnel (BUPERS) Program Manager in all matters related to the Center's operation.

22. Develops and maintains liaison with Navy, DOD, and civilian RDT&E organizations for the exchange of information and the establishment of cooperative efforts in MPT and organizational systems areas.

Organization

Operating Philosophy

NPRDC is an applied research center, contributing to the personnel readiness of the Navy and Marine Corps. The Center develops better ways to attract qualified people to the naval services to: select the best, assign them where they are most needed, train each one effectively and efficiently, and manage our personnel resources optimally. By combining a deep understanding of operational requirements with first-rate scientific and technical abilities, the Center is unique in being able to develop new, useful knowledge and refine technology to address people-related issues. This dual expertise permits the Center to develop the technology base for improving the use of human resources within Navy systems and to apply state-of-the-art technology to solve emerging problems. The organizational structure of NPRDC is represented in Figure 1. As a corporate asset, NPRDC is responsive to the needs of manpower, personnel, and training managers in the Navy, Marine Corps, and DOD, to the operating forces, and to the shore establishment that trains and supports the fleet.

The R&D methods used by NPRDC are derived from behavioral, cognitive, economic, and social sciences as well as from applied mathematics and statistics. The application of these methods results in tangible products of use to the Navy and Marine Corps. NPRDC constantly searches for technological opportunities to improve personnel readiness and to reduce manpower costs. We are accountable to Chief of Naval Personnel (CHNAVPERS), our sponsors, and our users for high productivity, strict ethics, honesty, integrity, professionalism, and perspective. The Center's reporting relationship is depicted in Figure 2.
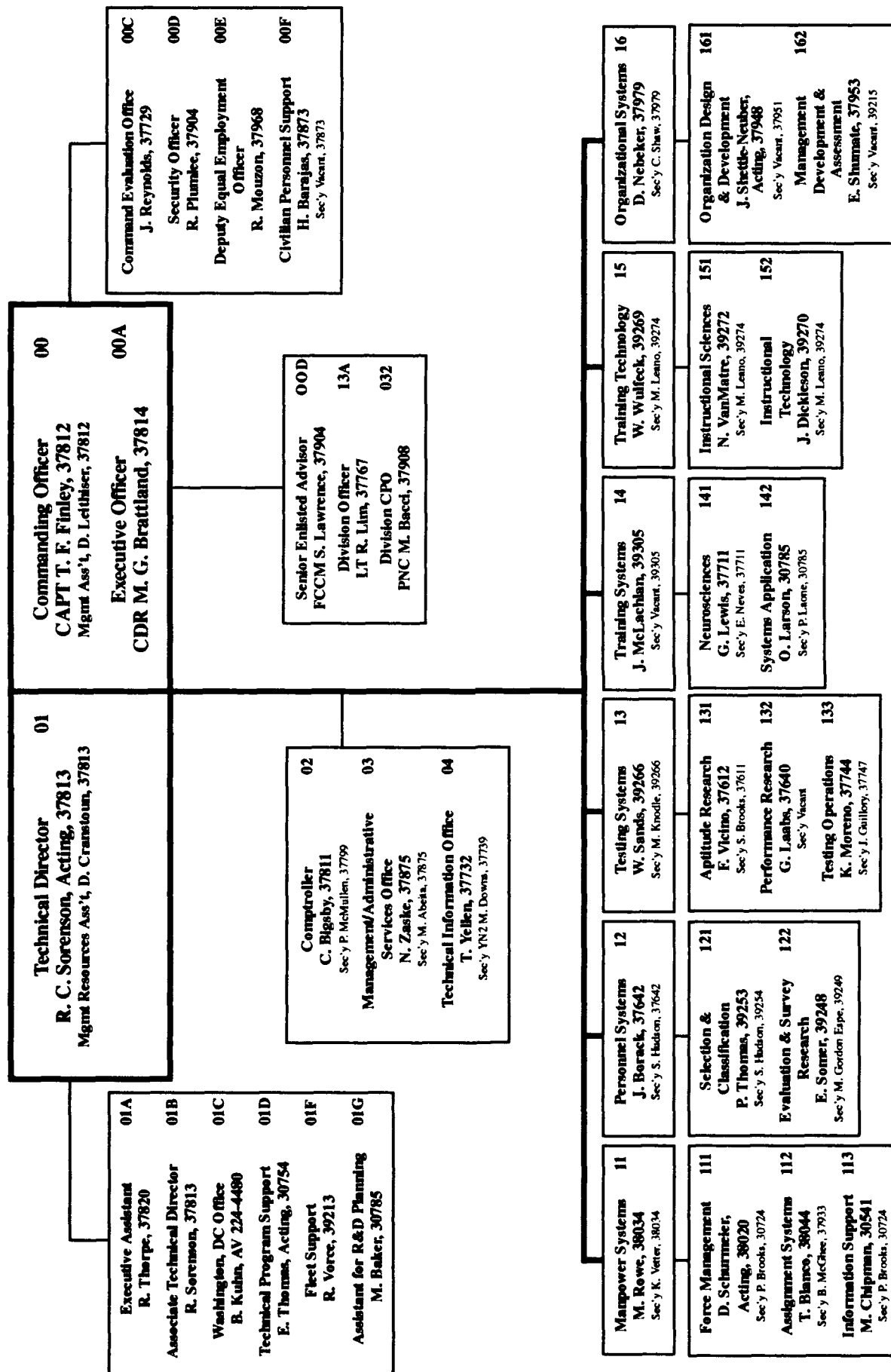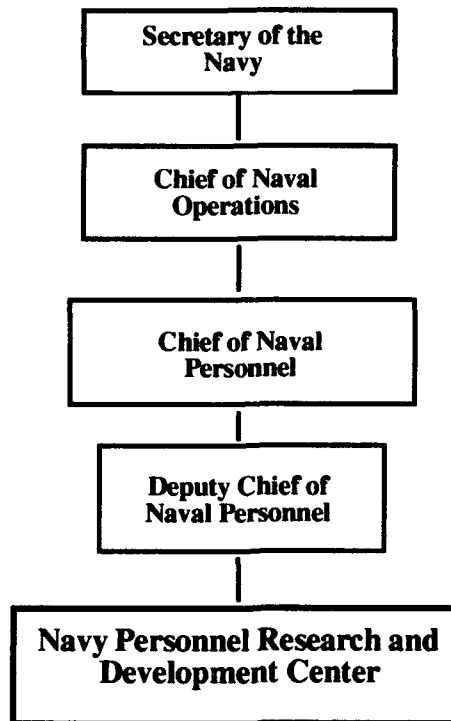
Commanding Officer 00
CAPT T. F. Finley, 37812
Mgmt Ass't, D. Leithiser, 37812

Executive Officer 00A
CDR M. G. Brattland, 37814

Technical Director 01
R. C. Sorenson, Acting, 37813
Mgmt Resources Ass't, D. Cranstoun, 37813

Command Evaluation Office — J. Reynolds, 37729 — 00C
Security Officer — R. Plumlee, 37904 — 00D
Deputy Equal Employment Officer — R. Mouzon, 37968 — 00E
Civilian Personnel Support — H. Barajas, 37873; Sec'y Vacant, 37873 — 00F

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Division Officer — LT R. Lim, 37767 — 13A
Division CPO — PNC M. Bacci, 37908 — 032

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Associate Technical Director — R. Sorenson, 37813 — 01B
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Technical Program Support — E. Thomas, Acting, 30754 — 01D
Fleet Support — R. Vorce, 39213 — 01F
Assistant for R&D Planning — M. Baker, 30785 — 01G

Comptroller — C. Bigsby, 37811; Sec'y P. McMullen, 37799 — 02
Management/Administrative Services Office — N. Zaske, 37875; Sec'y M. Abeita, 37875 — 03
Technical Information Office — T. Yellen, 37732; Sec'y YN2 M. Downs, 37739 — 04

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Testing Systems 13 — W. Sands, 39266; Sec'y M. Knodle, 39266
Training Systems 14 — J. McLachlan, 39305; Sec'y Vacant, 39305
Training Technology 15 — W. Wulfeck, 39269; Sec'y M. Leano, 39274
Organizational Systems 16 — D. Nebeker, 37979; Sec'y C. Shaw, 37979

Manpower Systems 11 — M. Rowe, 38034; Sec'y K. Vetter, 38034
Force Management 111 — D. Schumacker, Acting, 38020; Sec'y P. Brooks, 30724
Assignment Systems 112 — T. Blanco, 38044; Sec'y B. McGhee, 37933
Information Support 113 — M. Chipman, 30541; Sec'y P. Brooks, 30724

Selection & Classification 121 — P. Thomas, 39253; Sec'y S. Hudson, 39254
Evaluation & Survey Research 122 — E. Somer, 39248; Sec'y M. Gordon Espe, 39249

Aptitude Research 131 — F. Vicino, 37612; Sec'y S. Brooks, 37611
Performance Research 132 — G. Laabs, 37640; Sec'y Vacant
Testing Operations 133 — K. Moreno, 37744; Sec'y J. Guillory, 37747

Neurosciences 141 — G. Lewis, 37711; Sec'y E. Neves, 37711
Systems Application 142 — O. Larson, 30785; Sec'y P. Laone, 30785

Instructional Sciences 151 — N. VanMatre, 39272; Sec'y M. Leano, 39274
Instructional Technology 152 — J. Dickieson, 39270; Sec'y M. Leano, 39274

Organization Design & Development 161 — J. Shettle-Neuber, Acting, 37948; Sec'y Vacant, 37951
Management Development & Assessment 162 — E. Shumate, 37953; Sec'y Vacant, 39215

18 September 1991

Figure 1. 1991 organization.

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│   Secretary of the  │
│        Navy         │
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│   Chief of Naval    │
│     Operations      │
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│   Chief of Naval    │
│     Personnel       │
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│   Deputy Chief of   │
│   Naval Personnel   │
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│  Navy Personnel Research and  │
│     Development Center        │
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Figure 2. 1991 reporting relationships
(Department of the Navy Research,
Development, Testing, and Evaluation
(RDT&E) Organization).

As part of its operating philosophy, NPRDC seeks to do as much of its work as possible in the operational setting where the final products of the effort are intended to be used. This helps to ensure that the needs and requirements of the users are met and that the users themselves become familiar with the operational capabilities of the particular products. In some cases, because of the close researcher and user interaction, the output of interim or prototype products have been put into use before the final product has been completed. Examples of NPRDC's on-site research applications are shown in Table 1.

Further interaction with operational commands involve a variety of valuable MPT databases that NPRDC has developed and maintained. Because NPRDC is an in-house, corporate laboratory, these databases are readily available to support many different operational users and requirements. The databases, descriptions, and principal users are shown in Table 2.

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Table 1

On-site Research Applications

Project	Implemented Product	Site
Manpower		
Advancement Interface System	Petty officer advancement planning model	Bureau of Naval Personnel (BUPERS) (PERS-222C)
Force Analysis Simulation Technique	Enlisted inventory projection model	BUPERS (PERS-22C)
Manpower Management Simulator	Manpower management training simulator	Deputy Assistant Secretary of Defense (Manpower), Headquarters Marine Corps (HQMC), CNO (OP-01)/ BUPERS
Obligated Service Contract Analysis Report (OSCAR)	Retention forecasting model	BUPERS (PERS-22)
Structured Accession Planning System for Officers (STRAPO)	Officer manpower analyses system	BUPERS (PERS-21)
Officer Personnel Information System (OPIS)	Officer information delivery system (IDS)	BUPERS (PERS-21), (PERS-23)
Defense Personnel Analysis Systems	Defense personnel IDS	Office of the Assistant Secretary of Defense (FM&P)
Enlisted Nomination Modeling	Computer-enhanced Detailing and Distribution (CEDADS)	Enlisted Personnel Management Center, BUPERS
Permanent Change of Station (PCS)/Readiness Impact	PCS moves/unit readiness model	BUPERS (PERS-46)
Recruiting Effectiveness	Recruiting information delivery system	Chief of Naval Recruiting Command (CNRC), BUPERS (PERS-23)
Recruiting Resource Allocation	Resource allocation model (RAM)	CNRC, BUPERS (PERS-23)
Sea/Shore Rotation Management System	Sea shore rotation modelling system (Courtney)	BUPERS (PERS-221)
Budget Obligation Analysis and Tracking System (BOATS)	PCS expenditure IDS/overseas station allowance impact model	BUPERS (PERS-71)
	Manpower budget execution management system	BUPERS (PERS-7); Navy Finance Center, Cleveland, OH
Joint Specialty Officer (JSO)	JSO (IDS)	BUPERS (PERS-45)
	JSO management system (JSOMS)	BUPERS (PERS-45)
Enlisted Force Distributable Inventory	Skill personnel projection for enlisted rotation	BUPERS (PERS-221)
	Enlisted management community manning report system	BUPERS (PERS-221)

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Table 1 (Continued)

Project	Implemented Product	Site
Manpower		
Enlisted Force Distributable Inventory (Continued)	Enlisted Navy career options for retention	BUPERS (PERS-221)
	Accession planning system	BUPERS (PERS-221)
	Enlisted management communities algorithm	CNO (OP-132C)
	Women in the Navy	BUPERS (PERS-221)
Officer Distribution Management System (ODMS)	User/system documentation for ODMS	BUPERS (PERS-47), (PERS-454)
	Unrestricted line (naval) officer Navy manning plan and officer distribution projection system moved to production region of PERS-47 computer	BUPERS (PERS-47), (PERS-454), Placement Officers
	Design for expansion of ODMS restricted line, limited duty, and, chief warrant officers	BUPERS (PERS-454)
	Officer distributable projection system	BUPERS (PERS-45)
	Navy manning plan officer/officer manning information system	BUPERS (PERS-45), (PERS-41), (PERS-42), (PERS-43), (PERS-44)
Total Force Manpower Trade Offs	PC-programmed manpower authorizations system	BUPERS (PERS-52)
	Tooth to tail analysis	BUPERS (PERS-52)
	General duty billet allocation model	BUPERS (PERS-52)
PCS Moves Forecasting	PCS moves forecasting model	BUPERS (PERS-73)
U.S. Marine Corps (USMC) Enlisted Planning System	Inventory projection model/manpower planning model/selective reenlistment bonus planning model/promotion planning model	HQMC (MPP-20)
Officer Assignment Decision Support System	Officer assignment	HQMC (MM), (MMOA-3)
Personnel		
Officer Selection Systems	Maintain/evaluate selection system	U.S. Naval Academy
Navy Occupational Data System Leadership Survey	Design of officer leadership training needs analysis	CNO (OP-152)
Experienced-based Learning	Assessment of Naval Operations (NAVOP) NAVOP-105 policy	CNO (OP-13)
Training Resources Management (TRAINTRACK)	"C" school planning systems	CNO (OP-112); Chief of Naval Technical Training (CNTT)

Table 1 (Continued)

Project	Implemented Product	Site
Personnel		
TRAINTRACK (Continued)	TRAINTRACK	CNO (OP-112), (OP-13), BUPERS (PERS-4); Navy Training Systems Center (NAVTRASYSCEN); CNTT; Chief of Naval Education and Training (CNET); Training Command, Atlantic Fleet
Testing Systems		
Classification and Assignment Within PRIDE (CLASP)[a]	Maintain/evaluate classification and assignment system	BUPERS (PERS-291)
Education and Training		
Career Systems Design	Rating continuum design methodology	CNO (OP-111)
USMC Individual Training Standards	Development of training standards for over 100 military occupational specialties	HQMC/Marine Corps Control Data Center (MCCDC)
Helo Map Interpretation and Terrain Association Course (MITAC)	Improvement of pilot navigation skills	USMC Squadrons
Infantry MITAC	Improved map interpretation for USMC ground combat personnel	Officer Basic School, Quantico; Division Schools, Camps LeJeune, Pendleton
Intelligent Maintenance Training System	Training of SH-3H, AE, and AD maintenance personnel	Naval Aviation Maintenance Training Group, North Island
Steam Propulsion Plant Operator Training System (STEAMER)	Training aid in teaching operation of 1200 lb propulsion system	Surface Warfare Officers School, Coronado
Electronic Countermeasures/ Electronic Counter- countermeasures	Teaching recognition of and response to electronic radar system	Fleet Combat Training Center, Pacific (FCTC-P); Fleet Combat Training Center, Atlantic (FCTC-L)
S-3B Feature Analysis Decision System	Training of personnel to recognize contacts on advanced radar system	VS-27; Fleet Aviation Special Operations Detachment, Cecil Field
S-3B Passive Acoustic Decision System	Training of advanced acoustic decision system	VS-27, VS-41, VP-30, VP-31; Anti-submarine Warfare Training Center, Pacific, Atlantic; Surface Ship Acoustic Analysis Center
E-2C Radar Operator Simulation Training	Training of tactical personnel in operation of radar system	VFW-110, VFW-120
H-53 Helicopter Maintenance Simulation	Computer training system for USMC H-53 maintenance personnel	MCAS, El Toro

[a]Personalized Recruiting for Immediate and Delayed Enlistment (PRIDE).

Table 1 (Continued)

Project	Implemented Product	Site
Education and Training		
Battle-management Assessment System and Raid Originator Bogie Ingress (BATMAN & ROBIN)	Human-computer interfaces for joint tactical information distribution system computer models	Naval Air Development Center
	Assist in the development of AEGIS scenario development system (ASDS)	Naval Surface Weapons Center
	Support warfare analysis laboratory	Applied Physics Laboratory/Johns Hopkins University
	Scenarios for adaptive functional allocation for intelligent cockpits	Naval Research Laboratory
	ROBIN front-end expert system to create complex scenarios (TACTIC)	NAVTRASYSCEN
	Scenario generation for integrated undersea surveillance system	Naval Ocean Systems Center (NOSC)
	Front-end for battle force in-port trainer (BFIT)	NOSC
	New user interface for War-game Weapons and Tactical Analysis Center (WEPTAC) war-game; Phase II (WEPTAC II)	Naval Weapons Center (NWC)
	Support War-gaming Analysis Research Laboratory	Naval Postgraduate School
	Advanced tactics training for E-2C and E-3A crews	Carrier Airborne Early Warning Weapons School, Naval Air Station (NAS), Miramar
	Advanced anti-submarine warfare (ASW) and anti-surface warfare tactics P-3C	Commander Patrol Wings, Pacific, NAS, Moffett Field
	Interoperability of air and surface platforms for ASW	Sea-based Weapons Advanced Tactic School, NAS, North Island
	Maritime air superiority (MAS) F-14 fleet replacement crews	VF-124, NAS, Miramar
Skill Enhancement Program	Electrician's Mate (EM) "A" school	Naval Training Center (NTC), Great Lakes
Low Cost Micro-computer Training Systems (CBESS)	Officer and specialist threat memorization training	Navy and Marine Corps Intelligence Center, Dam Neck
	Threat memorization training	Commander Tactical Wings, Atlantic; NAS, Oceana
	Tactical action officer threat memorization training	FCTC-P, San Diego

Table 1 (Continued)

Project	Implemented Product	Site
Education and Training		
CBESS (Continued)	Helicopter crew threat recognition training	Aviation Research and Development Facility, Ft. Rucker
	Remedial training job-oriented basic skills	CNTT
	Remedial training (SeaBees)	Naval Construction Training Centers, Gulfport, Port Hueneme
	EM "A" school	NTC, Great Lakes
	Refresher training	CNET Water Front Trailers, Long Beach, Norfolk
Authoring Instructional Materials	70 weeks of instruction in various fields	Naval Education and Training Support Center, Pacific (NETSCPAC), Training Systems Development Department
	Over 500 weeks of instruction in engineering and electrical systems	Service School Command, NTC, Great Lakes
	Submarine systems	Naval Submarine School, New London
	TRIDENT engineering, operations, and strategic weapons training materials	TRIDENT Training Facilities, Kings Bay, Bangor
	Naval Sea Systems Command curricula	Naval Ship Weapons System Engineering Stations, Philadelphia, Port Hueneme
	SSN-21 systems	Newport News Shipbuilding
	Technical training	AEGIS Training Center, Dahlgren
Artificial Intelligence (AI) Tools in Authoring	Computerized front-end analysis tools	NETSCPAC, Training Systems
	Computerized front-end analysis tools	Service School Command, NTC, Great Lakes
Joint Staff Officer Training System	Training on joint staff operations	Joint Chiefs of Staff
AI in Explosive Ordnance Disposal	Computerized job aids	Explosive Ordiance Disposal Technology Center, Indian Head, MD
Courseware Portability	Programming standards for computer-based instruction/video	Office of the Secretary of Defense (OSD)

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Table 1 (Continued)

Project	Implemented Product	Site
Organizational Systems		
Guidelines for Transportable Education and Training	Transportable lessons from Defense Systems Management College's (DSMC's) Program Management Course and lessons learned in converting transportable course/lessonware	DSMC; Air Force Institute of Technology; Army Training and Doctrine Command, Ft. Monroe
Experimental Civilian Personnel Office	Evaluation of innovative civilian personnel practices with recommendations and guidelines for Department of Defense implementation	Headquarters, U.S. Army Communication and Electronics Command, Ft. Monmouth; Naval Supply Center (NSC), Norfolk; U.S. Air Force Academy; Defense Industrial Supply Center, Philadelphia; U.S. Army Europe, Heidelberg, Stuttgart, Frankfurt; Defense Depot, Memphis; Defense Contracting Administration Services Region (DCASR), Cleveland, Dallas, Boston, New York, Los Angeles, Chicago, St. Louis, Philadelphia; Air Base, Sembach; Air Force Base, Patrick, Chanute, Davis-Monthan, Minot, Andrews, Hickam, F. E. Warren; Defense Personnel Support Center; Defense Electronics Support Center; Defense Construction Support Center, Ft. Gordon, Ft. Eustis; NTC, San Diego; NAS, San Diego, Alameda, New London, Rota, Spain
Demonstration Project	Evaluation of Pacer Share Demonstration Project	Sacramento Air Logistics Center, Depot Region West Control Sites
Organizational Survey	Develop and administer survey	Navy Regional Contracting Center, San Diego
Naval Air Systems Command (NAVAIR) Total Quality Management (TQM)	TQM prototype	NAVAIR-04
DCASR/TQM	TQM prototype	DCASR, Philadelphia
TQM for OSD	TQM educational design	OSD, Under Secretary of Defense (Acquisitions)
Defense Communication Agency (DCA) TQM	TQM prototype	DCA
Navy Logistics Productivity Quality Improvement	TQM prototype	Naval Aviation Depot (NADEP), North Island; Sacramento Army Depot

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Table 1 (Continued)

Project	Implemented Product	Site
Organizational Systems		
Navy Logistics Productivity Quality Improvement (Continued)	TQM assessment	Naval Shipyards, Pearl Harbor, Portsmouth; NADEP, North Island, Cherry Point; NSC, San Diego; Sacramento Army Depot
Productivity Gain-sharing	Gain-sharing system	Fleet Combat Direction Systems Support Activity, San Diego; NSC, Oakland, Pensacola; NADEPs, Cherry Point, North Island, Jacksonville, Norfolk; Naval Shipyards, Portsmouth, Charleston; Navy Regional Data Automation Center, Norfolk; Public Works Center, San Diego
Acquisition Technology	Technology enhancements in Program Management Offices	NAVAIR (PMA-273), (PMA-260)

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Table 2
Databases

Database	Description	Sponsor/User
Manpower		
Tooth to Tail	Historical manpower data for forces and support categories.	Bureau of Naval Personnel (BUPERS), (PERS-52)
Personal Computer-Officer Programmed Authorizations/Enlisted Programmed Authorizations	Future years defense plans end strength and billets	BUPERS (PERS-52)
Manpower Projection	Ships, aircraft, and manpower (historical)	BUPERS (PERS-52)
Force Analysis Simulation Technique (FAST) Fast Input Model (FAIM)	Historical enlisted Navy personnel data	BUPERS (PERS-221)
Enlisted Management Community Database	Historical enlisted Navy personnel data	BUPERS (PERS-221)
Enlisted Personnel Planning System	Historical and projected Navy enlisted personnel data	BUPERS (PERS-221)
FAIM-O	Historical longitudinal Navy officer personnel data	BUPERS (PERS-21)
Officer Personnel Information System	Historical, aggregated Navy officer personnel data	BUPERS (PERS-21)
U.S. Marine Corps (USMC) Enlisted Personnel Database	Historical, longitudinal USMC enlisted personnel data	USMC
USMC Officer Personnel Database	Historical, longitudinal USMC officer personnel data	USMC (MPP-30)
Qualified Military Available Database	Qualified military available projections for USMC recruiting regions	USMC
Recruiting Market Analysis Database	Historical demographic, economic, educational, production data by Navy recruiting areas, districts, and counties	BUPERS (PERS-123), Chief of Naval Reserve Command (CNRC)
Defense Personnel Analysis System	All-service historical and projected officer and enlisted personnel data	Office of the Assistant Secretary of Defense (OASD) (FM&P)
Budget Obligation Analysis and Tracking System	Navy military personnel entitlements data	BUPERS (PERS-7)
Standard Personnel Measures	Measuring personnel flows	BUPERS (PERS-22)
Joint Specialty Officer (JSO) (IDS)	Historical aggregate Navy data on JSOs	BUPERS (PERS-21)

Table 2 (Continued)

Database	Description	Sponsor/User
Personnel		
Naval Reserve Officer Training Corps	Applicant information, school performance information, fitness report (FITREP) data	Chief of Naval Education and Training (N-1A)
Naval Academy	Applicant information, school performance information, FITREP data	U.S. Naval Academy (Dean of Admissions)
Officer Career	Questionnaire information, officer master file information	CNO (OP-130E)
Navy Integrated and Training System	Navy class "A" school information merged with Armed Services Vocational Aptitude Battery (ASVAB) data used for ASVAB validation and related studies and analyses	CNO (OP-135L), BUPERS (PERS-291)
Computer Managed Instruction Data[a]	Similar to Navy integrated training and reporting system data, merged with ASVAB data and used for ASVAB validation and related studies and analyses	CNO (OP-135L), BUPERS (PERS-291)
Joint Officer Monitor Officer	Officer and billet data pertaining to past and present joint duty assignments for USMC officers	Headquarters, Marine Corps (MMOA-3)
Testing Systems		
Classification and Assignment Within PRIDE (CLASP)[a]	Accession data, job options presented by CLASP	BUPERS (PERS-291)
PRIDE Data[b]	Recruitment information (data of enlistment, targeted rating) from automated classification system (CLASP) used for studies on Navy recruits and creating regression formulas used in CLASP	BUPERS (PERS-23), PERS-291)
Adaptability Screening Profile	Biographical, demographic, and first-term attrition information on military service enlisted applicants and accessions	BUPERS (PERS-23)
Compensatory Screening Model	FY88-89 DOD applicant data and first-term attrition data	OASD (FM&P)
Defense Manpower Data Center/ASVAB Data[b]	Navy enlisted applicants and accessions by fiscal year used for validation and related studies and analyses	BUPERS (PERS-23), (PERS-291)
American Youth Population Data	Maintained 1980 metric sample for ASVAB (youth 18-23), used for calibrating new forms of ASVAB, developed population parameters needed to correct for restriction of range in ASVAB validation samples	BUPERS (PERS-23), (PERS-291)

[a]Personalized Recruiting for Immediate and Delayed Enlistment (PRIDE).
[b]Databases are extracted from larger databases for use in responding to consumer's requests for data analysis.

Table 2 (Continued)

Database	Description	Sponsor/User
Testing Systems		
Reading Grade Level	Examinee data on both ASVAB and reading grade tests, used to estimate reading ability of military accessions without administering a reading test	OASD (FM&P)
Education and Training		
Operations Specialist (OS) Career Systems Design Rating	Materials, information, and products resulting from the OS rating training continuum	CNO (OP-111J)
Electronic Warfare (EW) Career Systems Design Rating	Materials, information, and products resulting from the EW rating training continuum	CNO (OP-111J)
Training Resources Management	Historical longitudinal Navy training and personnel data--an SSN-based data file	CNO (OP-11), Chief of Naval Education and Training
Organizational Systems		
Total Quality Management (TQM)/ Productivity Gain-sharing (PGS)	Maintained data on status of implementation of TQM and PGS for Navy organizations with 50 or more civilian employees	Office of the Secretary of the Navy (SECNAV)
Organizational Systems	Maintained data on organizational culture, climate, and effects of implementing TQM and PGS for those organizations participating in follow-up evaluations of TQM and PGS	SECNAV

Commanding Officer/Technical Director Biographies

Captain Thomas F. Finley Jr. was born in Norwood, Massachusetts. He is a 1966 graduate of the University of Maryland, was commissioned as ensign in June 1967, and received his Navy Pilot Wings in October 1968.

Captain Finley's first tour of duty was with Helicopter Antisubmarine Squadron SIX (HS-6) where he deployed to Vietnam aboard USS KEARSARGE (CVS-33), the Mediterranean aboard USS INDEPENDENCE (CVA-62), Canada aboard HMCS PROVIDER (AOR-508), and as copilot of the recovery helicopter for APOLLO 14 astronauts while aboard USS NEW ORLEANS (LPH-11).

After a tour as a flight instructor in HS-10, **Captain Finley** was Flight Deck Officer in the commissioning crew aboard the USS TARAWA (LHA-1). Ashore, he was the Helicopter Pilot Assignment Officer at the Bureau of Naval Personnel (BUPERS) and later served as Assistant Detailer for Aviation Captains.

As Executive Officer then Commanding Officer of the HS-4 "Black Knights" he made an Indian Ocean deployment aboard the USS KITTY HAWK (CV-63) and an around-the-world cruise on USS CARL VINSON (CVN-70).

In Washington, DC, **Captain Finley** worked as Assistant Director of U.S. Senate Liaison in the Office of the Secretary of the Navy and later served as the Major Staff Placement Officer at the Naval Military Personnel Command. He reported aboard the USS OKINAWA (LPH-3) as Executive Officer in September 1986 and made cruises to the Far East and to the Persian Gulf.

Captain Finley served for 2 years as Executive Assistant to the Commander Naval Air Force Pacific Fleet prior to reporting as Commanding Officer of the Navy Personnel Research and Development Center in January 1991.

Captain Finley's decorations include four awards of the Meritorious Service Medal as well as various unit, service, and campaign awards.

Captain Finley is the son of Mr. and Mrs. T. F. Finley, Sr. of Peaks Island, Maine. He is married to the former Joyce Andrews of Chevy Chase, MD. They have two sons, Matthew and Gregory and reside in Coronado, CA.

Dr. Richard C. Sorenson has served as the Acting Technical Director, Navy Personnel Research and Development Center (NPRDC) since February 1990.

He has been employed at the Center since its formation in 1973 and has planned, directed, and carried out research and development in personnel, training, human factors, neurosciences, and organizational systems. Since 1988, he has been the Associate Technical Director.

Before the Center was formed, **Dr. Sorenson** was on the staff of the Naval Personnel and Training Research Laboratory, the Army Research Institute, the University of Washington, and the American University.

Dr. Sorenson received his B.S. degree from the University of Idaho in 1959, and his M.S. and Ph.D. degrees from the University of Washington in 1962 and 1965 majoring in psychology. Later he studied mathematics, statistics, and economics at George Washington University. He is a licensed psychologist.

Dr. Sorenson was the recipient of the 1989 NPRDC Professional Publications Award and the 1990 Commander's Award for Management Excellence. He is a fellow of the American Association for the Advancement of Science. He is the author of over 40 professional contributions including book chapters, journal articles, and papers presented at professional meetings.

Dr. Sorenson is married to the former Bertha Hartung. They have eleven children ranging from 9 to 31 years of age.

January

New Employees

Lieutenant Rolando Lim
Code 151

Separations

Regina G. Bragg
Library Technician
Code 04
GS-1411-04

Paul J. Carney
Supply Clerk
Code 02
GS-2005-04

Claire G. Phillips
Management Assistant
Code 15
GS-344-07

Lieutenant Commander (LCDR) William Peck
Code 141

Promotions

Danette A. Cranstoun
Management Resources Assistant
Code 01
GS-303-07

Navy Commendation Medal

LCDR William Peck

Commanding Officer's Special Act Award

Elizabeth G. Harvey, Kenneth W. Hinds, and **Norma J. Zaske** received an award for designing and developing the Center's management information system to save development time, effort, and cost.

Plaridel Bautista, Josh W. Woods, Steve Goff, and **Charles F. Bigsby** received an award for successful accomplishment of the plant and minor property inventory system.

Steve Devlin received an award for integrating the computer programs and statistical procedures used to validate the U.S. Navy Academy (USNA) selection composite.

Military Change of Command and Retirement Ceremony

Captain Thomas F. Finley Jr. relieved Captain Barton E. Bacon III on 15 January 1991 as Commanding Officer, NPRDC. During Captain Bacon's retirement ceremony, he was awarded the Legion of Merit Award.

February

New Employees

Carol A. Evans
Student Trainee (Clerk)
Code 04
GS-0399-03

Judith D. Guillory
Clerk Typist
Code 00
GS-322-04

Separations

Gina L. Edelen
Supply Clerk (Typing)
Code 02
GS-2005-04

Meei You Lee
Computer Scientist
Code 11
GS-1550-12

Tracy D. Pope
Super. Operations Research Analyst
Code 16
GM-1515-14

Robert G. Wells
Administrative Officer
Code 13
GS-341-12

Retired

Joan L. Dunbar
Budget Analyst
Code 02
GS-560-11

Promotions

Christine E. Hall
Visual Information Specialist
Code 04
GS-1084-09

Thuvan T. Nguyen
Computer Specialist
Code 15
GS-334-12

Norman J. Zaske
Administrative Officer
Code 03
GS-341-13

Henry Davis, Robert Ross, and **Bill Perkins** (SP-15), Strategic Systems Program Office, Washington, DC.

Guest Speaker

Dr. Willie Brown, Professor of Biology, University of California San Diego, spoke on "Can I Learn to Learn Forever" in celebration of Black History Month.

March

Separations

Judith E. Hollis	**Sheila K. Stevens**
Accountant	Personnel Assistant
Code 02	Code 00
GS-510-09	GS-203-06

Promotions

Paul H. DeYoung	**David K. Dickason**
Personnel Research Psychologist	Personnel Research Psychologist
Code 16	Code 16
GS-180-12	GS-180-12

Richard A. Plumlee
Security Officer
Code 00
GS-080-12

National Defense Service Medal

**MAJ (USA) Ed Foley, DPC Dawn McConnell, BT1 Fred Hunt,
FC1 Cruz Tijerina, FC1 Dennis Rayburn, YN2 Pat Polus, YN2 Manuel Downs,
ET2 Walter Maxwell, SK2 Dan Cashmere**

Commanding Officer's Special Act Award

Roy Jordon received an award for providing significant enhancements to the manpower and personnel R&D and studies program of OP-01 and NPRDC.

Dennis Schurmeier received an award for service as an advisor to the officer and enlisted personnel management (O&EPM) branch of the Office of Assistant Secretary of Defense, Manpower.

Al Copeland and **Joel Garza** received an award for maintenance cost savings for the Data Communication Network.

Sue Frazier, Craig Borland, and **Meryl Abeita** received an award for reducing the cost of telephone services for the Center.

Visitors

Vice Admiral (VADM) J. H. Feterman, Chief of Naval Education and Training, and **Captain John Kelly,** Chief of Staff, Commander Training Force, Pacific.

Captain Arne B. Bruflat, Director, Research and Technology, Naval Air Systems Command.

April

New Employees

Richard A. Riemer
Personnel Research Psychologist
Code 16
GS-180-11

FCCS (SW) Bob McEwan
Code 01F

Retired

DSI Dave Curtis
Code 031

Promotions

Alice S. Dorsey
Management Resources Assistant
Code 15
GS-303-07

Michael R. Flaningam
Personnel Research Psychologist
Code 16
GM-180-13

Matthew F. Keblis
Operations Research Analyst
Code 11
GS-1515-12

Emelita M. Leano
Secretary (Typing)
Code 15
GS-318-06

Chan Shumate
Supv. Personnel Research Psychologist
Code 16
GM-180-14

Senior Chief Scott Lawrence was promoted to **Master Chief Fire Controlman.**

<u>Navy Achievement Medal</u>

DS1 Dave Curtis

<u>Technical Director's Special Award for Technical Accomplishment</u>[1]

Videoteletraining Experimental Laboratory

To determine the most cost-effective methods to train students at remote sites, such as aboard ships, NPRDC has designed, developed, and evaluated an experimental two-location Video Teletraining (VTT) System, which enables two-way communication. Through the use of audio/ video equipment and communication links, the two locations provide a "demonstration" opportunity for experimental testing simulations. A cost analysis conducted during the VTT demonstration indicated that VTT is more cost-effective compared to sending students on a Temporary Additional Duty basis to attend schoolhouse training--with savings of up to 50 percent.

The project team, **Henry Simpson, Larry Pugh,** and **Steve Parchman,** conducted a survey at 13 sites in public education, industry, and the military, which are currently using some form of VTT to deliver instruction. Through the additional technical expertise of **Jim Julius,** NPRDC has established a VTT laboratory classroom at Fleet Training Center. The laboratory links two classrooms by closed-circuit video, audio, facsimile, and telephone. Researchers are able to collect detailed information and data.

Navy-wide Personnel Survey

The Navy Personnel Survey System (NPSS) was established to obtain, in a systematic and timely manner, the attitudes and opinions of Navy life from Navy civilians and military personnel. The information is used by managers and policy makers to evaluate programs in the areas of recruiting, training, and quality of life. In addition, this attitudinal data is used to identify potential problems in the area of retention and attrition. Another function of NPSS is to manage Navy personnel surveys which will reduce intrusion on Navy commands and reduce data collection costs.

The mainstay of NPSS is the annual Navy-wide Personnel Survey (NWPS). The results of the first NWPS conducted last year have been incorporated into the BUPERS policy initiatives.

Researchers who have worked on the NWPS are **Mannie Somer, Dianne Murphy, Dave Tyburski, Gerry Wilcove, Herb Baker, Paul Rosenfeld, Marie Thomas, Amy Culbertson,** and **Paul Magnusson.**

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[1] The Technical Director's award provides individuals and work teams immediate recognition for exemplary technical accomplishment contributing to the Center mission. As an applied research center, NPRDC's principal goal is to apply state-of-the-art technology to solve emerging problems affecting Navy and Marine Corps personnel readiness. The attainment of this goal is manifested in tangible products of operational use to Navy and Marine Corps commands. The focus of this special award is on those exemplary technical accomplishments that result in products of significant value to particular user commands.

Visitor

The Chief of Naval Operations (CNO) Mobile Training Team graduated from Total Quality Leadership (TQL) training conducted by the NPRDC Quality Support Center. VADM Boorda, Chief of Naval Personnel was the graduation ceremony speaker and presenter of graduation certificates.

May

New Employees

Mariaelene P. Amaya
Clerk Typist
Code 11
GS-322-04

Ruth S. Bryant
Clerk Typist
Code 02
GS-322-03

Rosary F. Enad
Computer Specialist
Code 04
GS-334-09

Gwendolyn K. Jones
Management Resources Assistant
Code 13
GS-303-06

Rosemary A. Villarin
Budget Analyst
Code 02
GS-560-09

STSCS Jack Banks
Code 131

DS3 Marc Madison
Code 031

Separations

Delora M. McDaniel
Personnel Research Psychologist
Code 01E
GS-180-12

William C. McDaniel
Personnel Research Psychologist
Code 14
GM-180-13

David B. Osteyee
Operations Research Analyst
Code 11
GS-1515-09

ET2 Walter Maxwell
Code 031

SK2 Dan Cashmere
Code 01D

Retired

David G. Huntley
Mathematical Statistician
Code 11
GS-1529-11

Visitor

Captain John B. Foley, III., Chief of Staff, NMPC, Deputy Chief of Naval Personnel (OP-01BA).

Consolidation

The Secretary of the Navy approved for consolidation of MPT functions in Washington. On 15 May 1991 all of NMPC and most of the office of Deputy Chief of Naval Operations (DCNO (MPT)) will merge under the Chief of Naval Personnel (CHNAVPERS). The Bureau of Naval Personnel (BUPERS) performed the duties previously accomplished by OP-O1 and NMPC. Included were: MPT Policy Development (planning, budget preparation, administration of promotion broads, and administrative boards and all other personnel previously conducted by NMPC). CNMPC remained the same, however these commands reported to CHNAVPERS as of 15 May 1991.

June

New Employees

Joseph P. Cohan
Electronics Technician
Code 03
GS-856-04

Sylvia Y. Hudson
Secretary (Typing)
Code 12
GS-318-05

Thomas J. Koslowski
Management Analyst
Code 01E
GM-343-13

Laura J. Lang
Clerk
Code 02
GS-303-04

Zannette A. Perry
Clerk Typist
Code 12
GS-322-03

Tamara S. Smith
Clerk
Code 00
GS-303-03

Ian S. St John
Clerk
Code 03
GS-303-02

Separations[2]

Linda M. Doherty
Supv Personnel Psychologist
Code 01E
GM-180-15

Barbara A. Heins
Secretary (Typing)
Code 16
GS-318-05

Archester Houston
Personnel Psychologist
Code 01E
GM-180-13

Tom Koslowski
Management Analyst
Code 01E
GS-343-13

Antonio R. Rodriguez
Industrial Engineer
Code 01E
GS-896-12

Roberta W. Ryan
Technical Publications Writer/Editor
Code 01E
GS-1083-12

Joyce E. Silberstang
Personnel Psychologist
Code 01E
GS-180-12

Robert A. Sniffin
Personnel Research Psychologist
Code 01E
GM-180-14

Shirley L. Stolarz
Management Assistant
Code 01E
GS-344-07

Jose G. Suarez
Personnel Research Psychologist
Code 01E
GS-180-12

Joyce E. Ward
Management Analyst
Code 01E
GS-343-11

Wilbert R. Young
Personnel Research Psychologist
Code 01E
GS-180-12

Retired

LCDR Dave Cradduck
Code 14

Promotions

Marci D. Barrineau
Documentation & Information Specialist
Code 04
GS-1001-09

Delbert M. Nebeker
Supv Personnel Research Psychologist
Code 16
GM-180-15

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[2] Transferred to Quality Support Center, Washington, DC.

Dorothy L. Pakus
  Computer Specialist
  Code 13
  GS-334-12

Gary A. Ropp
  Operations Research Analyst
  Code 11
  GS-1515-12

Henry K. Simpson
  Electronic Engineer
  Code 15
  GS-855-13

Boyd C. Tatum
  Personnel Research Psychologist
  Code 16
  GS-180-13

Thomas Trent
  Personnel Research Psychologist
  Code 13
  GS-180-13

Mike C. Yau
  Computer Scientist
  Code 11
  GS-1550-12

Joyce E. Ward
Management Analyst
Code 01E
GS-343-11

Navy Commendation Medal

LCDR Dave Cradduck

Navy Achievement Medal

DP1 Susan Newhouse

Commanding Officer's Special Act Award

Marci D. Barrineau received an award for performance that substantially exceeded job requirements.

Technical Director's Special Award for Technical Accomplishment

TRAINTRACK

TRAINTRACK is a user-friendly system of interfacing manpower, personnel, and training (MPT) databases within a database management system called FOCUS. This system is a product of the Training Resources Management (TRM) project and provides research/analysis support to Bureau of Naval Personnel (PERS-11), Naval Education and Training (CNET), and Navy Training Systems Center (NTSC). In addition to training research/analysis, TRAINTRACK provides data in support of manpower and personnel research efforts. For example, TRAINTRACK provides data on a quarterly basis to the Chief of Naval Personnel on first-term attrition. Because of the breadth of data included in TRAINTRACK, new uses of the system are constantly being discovered. One of the more interesting applications was to provide TRAINTRACK access to deployed units via satellite relay.

Over the years, **Mike Nakada, Wolfgang Milczewsky, Steve Wax,** and **Valerie Hall** have been responsible for the development and maintenance of TRAINTRACK. One of the reasons for

the ever-growing application of the TRAINTRACK system is its expansion to include additional MPT data with frequent updating. The user-friendly database management system, FOCUS, used by many other Navy sites, helps manage the growing size and complexity of the input for TRAINTRACK.

Obligated Service Contract Analysis Report (OSCAR)

Karen Shih-hue Hsu (contractor), **Joe Silverman,** and **Yuh-Ling Su** have developed a spreadsheet model that forecasts Expiration of Active Obligated Service (EAOS) personnel actions. These actions include all EAOS losses, reenlistments, and extensions. There are more than 150,000 such actions each year and the accuracy in forecasting these events has a big impact on recruiting, promotion, permanent change of station (PCS) movements, and bonuses. The OSCAR model provides forecasts of EAOS-type actions by month, paygrade, career status, and branch of service up to 3 years into the future.

Based on results in FY91, OSCAR has reduced forecasting error by 58 percent for EAOS losses, 54 percent for reenlistments, and 92 percent for extensions. The use of OSCAR by personnel strength planners (PERS-22) has helped to avoid PCS "freezes", delayed promotions, and forced separations (reduction in force) in FY91 and FY92.

July

New Employees

Mary E. Elliott
Clerk
Code 00
GS-303-03

Susan M. Bickers
Management Resources Assistant
Code 16
GS-303-07

Separations

Janet L. Rodenkirch
Personnel Clerk
Code 00
GS-203-04

BT1 Fred Hunt
Code 031

Retired

STSCS Mike Spencer
Code 14

LCDR James Jordan
Code 13

Promotions

Thomas L. Diamond
Personnel Research Psychologist
Code 16
GS-180-12

Anthy J. Dunlap
Computer Specialist
Code 13
GS-334-9

Donna V. Holloman
Computer Specialist
Code 14
GS-334-07

<u>Navy Commendation Medal</u>

LCDR James Jordan
STSCS Mike Spencer

<u>Technical Director's Special Award for Technical Accomplishment</u>

Computer-enhanced Detailing and Distribution (CEDAD) System

The CEDAD system provides detailers with a tool to achieve faster and less labor-intensive personnel assignments. Better detailing decisions are made possible through CEDAD in terms of minimizing PCS (moving) costs, maximizing fleet manning/readiness, and maximizing individual assignment location preferences.

Using technologies developed in Enlisted Personnel Allocation and Nomination System (EPANS) for quantifying and organizing eligibility rules and policy objectives, **Timothy Liang, Ben Buclatin, Iosif Krass,** and **Mike Yau** have added two major enhancements to produce CEDAD. First, for each individual, CEDAD generates a list of eligible job nominations rank ordered by policy goals. Second, CEDAD's interactive, on-line processing allows detailers to tailor each individual assignment and obtain a list of job nominations during the course of telephone negotiations.

The CEDAD research effort represents a good example of user participation in designing, modifying, and prototyping a new system before its acceptance. With full endorsement by the test user group, detailers in the Engineering/Hull enlisted assignment branch, VADM Boorda has approved CEDAD for full-scale development and implementation.

August

<u>New Employees</u>

Paulette L. Brooks
Secretary (Typing)
Code 11
GS-318-05

Charlotte L. Dinger
Supervisory Librarian
Code 04
GS-1410-09

Mary K. Knodle
Secretary (Typing)
Code 13
GS-318-06

Nelia N. Petelo
Computer Assistant
Code 02
GS-335-05

Separations

Joseph P. Cohan
Electronics Technician
Code 03
GS-856-04

Ana F. Guerrero
Computer Assistant
Code 02
GS-344-05

Matthew F. Keblis
Operations Research Analyst
Code 11
GS-1515-12

Mary A. Wentink
Computer Specialist
Code 01
GS-334-12

MAJ (USA) Ed Foley
Code 13

Retired

Craig E. Borland
Management Services Clerk
Code 03
GS-303-05

AWCS Jeff Rians
Code 14

Promotions

Steven E. Devlin
Personnel Research Psychologist
Code 12
GS-180-11

Prentice C. St. Clair
Personnel Research Psychologist
Code 16
GS-180-11

Navy Commendation Medal

MAJ (USA) Ed Foley
AWCS Jeff Rians

Technical Director's Special Award for Technical Accomplishment

Senior Leaders Seminar Course Development

TQL is a management system based, primarily, on the W. Edwards Deming theory of management. TQL focuses on quality leadership, meeting the needs of the customer, helping people perform their jobs more efficiently and effectively, working more closely with suppliers, and the application of quantitative methods for continuous process improvement.

TQL requires a top-down approach. In that spirit, the DON Executive Steering Group (ESG) requested NPRDC to develop a course to provide senior leaders with the knowledge of how to begin implementing the total quality approach in their organizations.

The result of that request is the Senior Leaders Seminar, designed for commanding officers and senior civilian leaders of shore-based organizations that serve the operational commands. The Senior Leaders Seminar is the "flagship" course for TQL education and training in the DON. **Steve Dockstader, Mike Flaningam, Paula Konoske, Samuel Landau, Daira Paulson, Carolyn Shaw, Chan Shumate, Prentice C. St. Clair, Barbara Tarker,** and **Judy Wasik** each contributed to the development of this course.

Visitor

Dr. James Decorpo, CDR John S. Rupnik, and **Dr. David Morgan,** Office of Advanced Technology, Office of Chief of Naval Research (CNR).

September

New Employees

Rosa L. Broadway
Mail and File Clerk
Code 03
GS-305-04

Filomena M. Cronin
Supply Clerk
Code 02
GS-2005-04

Beverly D. McGee
Personnel Assistant
Code 00
GS-203-05

Separations

Mariaelene P. Amaya
Clerk Typist
Code 11
GS-322-04

Mary E. Elliot
Clerk
Code 00
GS-303-03

Phyllis J. Gray
Secretary (Typing)
Code 16
GS-318-05

Vel N. Hulton
Personnel Research Psychologist
Code 16
GS-180-12

Laura J. Lang
Clerk
Code 02
GS-303-04

Zannette A. Perry
Clerk Typist
Code 12
GS-322-03

Ian S. St John
Clerk
Code 03
GS-303-03

Ruth S. Bryant
Clerk Typist
Code 02
GS-322-03

Retired

Donald L. Van Kekerix
Personnel Research Psychologist
Code 15
GS-180-12

OSC Gary Kincaid
Code 14

Promotions

Dennis Cheng
Computer Specialist
Code 13
GS-334-12

Ernest D. Pojas
Management Service Clerk
Code 03
GS-303-5

Gwendolyn K. Jones
Management Resources Assistant
Code 13
GS-303-07

Rosemary A. Villarian
Budget Analyst
Code 02
GS-560-11

Navy Achievement Medal

OSC Gary Kincaid

Center Award Ceremonies

Sandy Wetzel-Smith received the DON Superior Service Award for exceptional achievement while serving on the staff of the Deputy for Antisubmarine Warfare, Office of the Secretary of the Navy.

Murray Rowe received the DON Meritorious Civilian Service Award for meritorious service during Fiscal Year 1991 as (1) Director, Manpower Systems Department, and (2) Chairman, Manpower and Personnel Systems Joint Technology Coordinating Group of the Training and Personnel Systems Science and Technology Evaluation and Management Committee.

Length of Service Awards

35 Years

Ben Garcia
Gene Stout

30 Years

Jim Julius
Ramona Mouzon
Hal Rosen

25 Years

Jim Chadbourne
Bob Harris
Dorothy Martin
Jan Reynolds

20 Years

Craig Borland*
Mike Flaningam

15 Years

Mark Chipman
Carmen Fendelman
Murray Rowe

10 Years

James Apple
Jessie Grier
Ana Guerrero*
Loralee Hartmann
Shirley Stolarz*
Ted Thompson

*Employees separated/retired from the Center prior to the ceremony.

Fleet Support Service Award

NPRDC's Total Quality Leadership program was awarded the Fleet Support Service Award for efforts in support of the operating forces of the Navy. This award was presented for performance that is characterized as extraordinary with results that not only significantly improved the readiness of the fleet but also enhanced the Center's reputation with the fleet.

Receiving the award were:

Paul DeYoung, Presenter; **Tom Diamond,** Technical Advisor; Curriculum Development, Presenter; **Steven Dockstader,** Presenter; **Linda Doherty,** Project Manager, Presenter; **Michael Flaningam,** Curriculum Coordinator; **Barbara Heins,** Logistics; **Vel Hulton,** Curriculum Development; **Paula Konoske,** Curriculum Development, Presenter; **Samuel Landau,** Technical Advisor, Curriculum Development Presenter; **Delora McDaniel,** Technical Advisor, Curriculum Development, Presenter; **Daira Paulson,** Curriculum Development; **Antonio Rodriguez,** Technical Advisor, Curriculum Development, Presenter; **Hal Rosen,** On-site Coordinator; **Bobbie Ryan,** Curriculum Development; **Chan Schumate,** Logistics, Curriculum Development, Presenter; **Bob Sniffin,** Presenter; **Prentice C. St. Clair,** Evaluation, **Gerald Suarez,** Technical Advisor, Curriculum Development, Presenter; **Barbara Tarker,** Curriculum Development; **Joyce Ward,** Logistics, Presenter; **Judy Wasik,** Curriculum Development; **Wilbert Young,** Presenter.

Commanding Officer's Special Act Award

Susan Pinciaro received an award for providing significant enhancements to the MPT R&D programs of OP-01 and NPRDC while serving as the science advisor to VADM Boorda DCNO (OP-01).

Technical Director's Special Award for Technical Accomplishment

Authoring Instructional Materials (AIM)

The objective of the AIM project is to develop an automated system for the design, development, and production of instructional materials for conventional and computer-delivered courses. In 1991, the AIM curriculum authoring system for equipment-based instruction was completed. AIM software has been used to produce the instructional materials for a number of courses at nine sites. Activities using the AIM software are: Service School Command, Great Lakes; Fleet Training Center, San Diego; Submarine Training Facility, Charleston, S.C.; Submarine Training Facility, Pearl Harbor; Aegis Training Center, Dahlgren; Naval Technical Training Center, Corry Station, Pensacola; Strategic Programs, SP-15, Washington, DC; Newport News Shipbuilding; and Naval Sea Systems Command, Washington, DC.

The Chief of Naval Operations has set up an AIM Management Team, tasked with the responsibility of testing, evaluating, and prescribing refinements to the software. Navy Training Systems Center has been designated as the System Support Office for transition to Navy-wide implementation. Over the years, the AIM project team has included: **Jim Apple, Larry Carroll, Jan Dickieson, Jeff Gordon, Sean Malloy, Margen Metcalfe, DPC Dawn McConnell, Barbara Morris, Thuvan Nguyen, Eleanor Robinson, Barbara Taylor, Bernie Ulozas,** and **Wally Wulfeck.**

Artificial Intelligence-explosive Ordnance Disposal Delivery System (AI-EOD)

The Office of the Secretary of Defense, via the Joint-services Manpower and Training Systems Development Program, issued a requirement to convert the Explosive Ordnance Disposal (EOD) database to electronic format (i.e., an artificial intelligence system). Design and development of the AI-EOD delivery system included joint-service, combined efforts of the Navy Explosive Ordnance Disposal Technology Center, the Los Alamos National Laboratory, and NPRDC. NPRDC's **Harry Conner** provided human factors engineering expertise, project management, and is currently accomplishing the test and evaluation.

The database for the AI-EOD project, derived by EOD experts at 20 operational sites from the four services, uses computer technology to automate the storage, retrieval, updating, reproduction, and utilization of EOD technical information. Data are being gathered at the Navy School for Explosive Ordnance Disposal (NAVSCOLEOD) to establish "expert" and "novice" performance base lines. In 1991, requirements analysis, system architecture design, development planning, and the prototype development phases were completed. Prototype testing and evaluation began. The technical goal of the AI-EOD project is to demonstrate the effectiveness of an improved information system by increasing the efficiency of EOD teams.

Visitors

Captain Skip Sterling, CDR David Norman, and LCDR Mark Burgunder, Total Force Education Policy Division (OP-11B).

Captain Clinton Davie and **Dr. Alain Hunter,** Navy Occupational Development and Analysis Center (NODAC).

October

New Employees

Juliene G. Miller
Student Trainee (Clerk Typist)
Code 16
GS-399-03

Leticia N. Novelo
Student Trainee (Psychology)
Code 14
GS-199-04

Merle J. Vogel Jr.
Student Trainee (Education Research)
Code 15
GS-1799-09

FC1 Brian M. O'Hara
Code 031

Separations

Audrey L. Finley
Secretary (Typing)
Code 11
GS-318-05

Donna V. Holloman
Computer Specialist
Code 14
GS-334-07

Nelia N. Petelo
Computer Assistant
Code 02
GS-335-05

Retired

William L. Sarati
Computer Systems Analyst
Code 15
GS-334-11

Technical Director's Special Award for Technical Accomplishment

Marine Corps Personnel Assignment Policy: A Hypertext Application

A hypertext application, Marine Corps Personnel Assignment Policy (MCPAP), was developed by **Bob Chatfield** and **Brian Kewley** as part of the Officer Assignment Decision

Support System (OADSS) effort. MCPAP will be used by Monitors (i.e., Detailers) within the Manpower Management Officer Assignment Branch (MMOA) at Headquarters, Marine Corps.

This hypertext presentation of official Marine Corps assignment policies and regulations is desirable as the voluminous hardcopy versions of this information are often difficult to reference. MCPAP allows the user to move quickly through "topics" with a simple point-and-click of the mouse. Hypertext "links" are highlighted with reverse video on selected key words and topics. Extensive use is made of .PCX images to make the interface more graphically-oriented and hence more user-friendly.

MCPAP will be used to familiarize new Monitors with official staffing policy while also serving as a valuable reference aid to experienced Monitors. This application will reduce the clerical workload of Monitors and significantly improve implementation of official Marine Corps assignment policy.

Naval Reserve STEAMER II Simulator/Training System

STEAMER II is an innovative simulation of a 1200-psi steam plant that enables users to observe and manipulate the operation of the plant. Users can manipulate icons that represent dials to observe flow of water, steam, fuel, and oil through various valves, pumps, gauges, motors, and other components and indicators.

NPRDC's **Vern Malec** has transformed STEAMER II from a high-fidelity simulation into a low-cost, microcomputer-based training system with curriculum, software tools for developing new dynamic simulations of tutorials, and engineering operation sequence systems (EOSSs). Currently, production-level STEAMER II training systems are being installed at several Naval Reserve training sites. The introduction of STEAMER II into reserve training throughout the country is expected to:

- Increase training readiness of engineering personnel.
- Provide remote site training in propulsion engineering.
- Provide enhanced standardized instruction in the theory and operation of a 1200-psi steam plant
- Improve instructor utilization in propulsion engineering training.

Organizational Changes

Changes in the structure of the Center's research departments were submitted to the Chief of Naval Personnel for approval. The specific changes were:

1. Disband Personnel Systems Department (Code 12).

2 Redesignate Testing Systems Department (Code 13) as the Personnel Systems Department (Code 12). Designate the divisions in Code 13 as:

   a. Code 121, Aptitude Research Division.

   b. Code 122, Selection and Classification Division.

   c. Code 123, Testing Operations Division.

3. Redesignate Evaluation and Survey Division (Code 122) as Survey Research Division (Code 163 within the Organization Systems Department (Code 16)).

4. Consolidate Code 12 research projects dealing with certain high visibility issues in a new Women and Multicultural Research Office (Code 01E) on the staff of the Technical Director.

November

New Employees

Ruth S. Bryant
Supply Clerk
Code 02
GS-2005-04

Christian A. Reese
Secretary (Typing)
Code 13
GS-318-05

LCDR Gene LeDuc
Code 131

AWCS Gary Willman
Code 131

Separations

Juliene G. Miller
Student Trainee (Clerk Typist)
Code 16
GS-399-03

Carlos R. Wales
Student Trainee (Clerk)
Code 04
GS-399-03

Barbara Busch
Supervisory Librarian
Code 04
GS-1410-11

FC1 Dennis Rayburn
Code 031

Promotions

Filomena M. Cronin
Accounting Technician
Code 00
GS-525-05

Charlotte L Dinger
Supervisory Librarian
Code 04
GS-1410-11

Judith D. Guillory
Secretary
Code 133
GS-318-05

Arneva Y. Johnson
Office Automation Assistant (Typing)
Code 02
GS-326-05

Bertha R. Mack	Margaret J. Sullivan
Personnel Assistant	Budget Assistant
Code 00	Code 11
GS-203-07	GS-561-06

Visitors

Mrs. Jeannie Fites, Principal Director, DASD (Requirements and Resources) and **Dr. Richard Elster,** Dean of Instruction, Naval Postgraduate School.

December

New Employees

Angela C. Bitter	Marquis E. Kendra
Secretary (Typing)	Supply Clerk
Code 16	Code 02
GS-318-05	GS-2005-04

Separations

Robert E. Chatfield	Chester J. Pabiniak
Computer Specialist	Statistician
Code 11	Code 11
GM-334-13	GS-1530-12

Promotions

Mary J. Shettel-Neuber
Supv. Personnel Research Psychologist
Code 16
GS-180-14

YN2 Pat Polus was promoted to **Yeoman First Class**

Sailor of the Year

YN1 Pat Polus

Technical Director's Special Award for Technical Accomplishment

Joint Specialty Officer Modeling System (JSOMS)

The JSOMS provides the Navy with a decision support capability to direct its Joint Specialty Officer (JSO) program. **Douglas Hentschel,** developed the JSOMS as a simulation model that allows the Navy to optimally implement JSO policy.

JSOMS provides the Joint Specialty Officer Management Division of the Officer Assignment Branch within the Bureau of Naval Personnel (PERS-455) with the ability to test Navy compliance with Title IV of the 1986 Goldwater-Nichols DOD Reorganization Act, along with the ability to analyze changing requirements, rules, and policies.

JSOMS currently provides modeling capabilities for all officer communities affected by Title IV. The model utilizes community-specific information to simulate officer career paths. JSOMS runs under Microsoft Windows and provides a friendly graphical user interface. Future work on JSOMS will focus on fine tuning the model parameters and officer assignment modules.

Validation Studies of ASVAB Selector Composites for Class "A" Schools

All the military services use the ASVAB as the primary instrument for selecting and classifying applicants for enlistment. Four of the battery's 10 tests are combined to form the Armed Forces Qualification Test (AFQT) score, which determines an applicant's eligibility to enlist, while 11 different combinations of the tests are formed into composites used to assign individuals to Navy class "A" schools. In a typical fiscal year, there are over 100,000 applicants tested for the Navy. Approximately 70,000 of these individuals are actually enlisted. Eighty percent of this group must be classified into approximately 85 Navy Class "A" Schools.

Paul Foley, Janet Held, Reynaldo Monzon, and **Charles Johns** work closely with the Recruiting and Retention Programs Division of the Bureau of Personnel. Their mutual goal is to ensure ASVAB composite scores are the best available predictors of successful "A" school completion.

Recently, the group completed validation analyses on nine Navy ratings. Recommendations for revising ASVAB selector composites were provided to Bureau of Naval Personnel (PERS-23) for the following schools:

- Air Traffic Controller
- Aerographer's Mate
- Aviation Antisubmarine Warfare Operation
- Operations Specialist
- Quartermaster
- Radioman
- Signalman
- Gas Turbine System Technician, Electrical
- Gas Turbine System Technician, Mechanical

Navy Meritorious Civilian Service Award

Russ Vorce received the Navy Meritorious Civilian Service Award for superior service while serving as Program Manager for the Navy Science Assistance Program for engineering and administrative contributions to the program from August 1990 to March 1991.

Russ also received a Certificate of Commendation for his work with the Marine Corps during Operation Desert Storm.

Visitors

Ms. Dottie Meletzke, Deputy Assistant Secretary of the Navy (Civilian Personnel Policy/ EEO) and **Dr. Irene Pendleton,** Special Assistant for TQL, Naval Supply Systems Command.

History

01 Jul 51   The Naval Personnel Research Unit, San Diego, CA was established under the Bureau of Naval Personnel to provide a personnel research facility close to the operating forces.

01 Jul 52   The U.S. Naval Personnel Research Field Activity was established in Washington, DC to provide an activity close to Navy users and systems.

26 May 61   SECNAV Notice 5450 redesignated the two field activities as U.S. Naval Personnel Research Activities.

10 Dec 68   OPNAV Notice 5450 redesignated the Naval Personnel Research Activity, Washington, DC as the Naval Personnel Research and Development Laboratory due to increased emphasis on R&D.

01 Aug 69   The Chief of Naval Operations redesignated the Naval Personnel Research Activity, San Diego, CA as the Naval Personnel and Training Research Laboratory.

01 May 73   The Secretary of the Navy approved the establishment of NPRDC, San Diego, CA to provide a corporate personnel laboratory with an in-depth capability in the behavioral and management sciences. This action consolidated those research functions assigned to the Naval Personnel Research and Development Laboratory, the Naval Personnel and Training Research Laboratory, and the Personnel Research Division of BUPERS.

17 May 75   OPNAV Notice 5450 changed command and support responsibility for NPRDC from the Chief of Naval Personnel (CNP) to the Chief of Naval Material (CNM).

22 May 80   NAVMATINST 5450.27B modified the mission statement to include technical and consultant support and services to CNO in the design, development, and operation of the Navy personnel system.

01 Oct 80   The Commanding Officer, NPRDC directed to report for additional duty to DCNO (Manpower, Personnel, and Training) (OP-01).

06 May 85   The disestablishment of CNM changed command and support responsibility for NPRDC from CNM to Chief of Naval Research (CNR).

24 Feb 86   The Secretary of the Navy changed command and support responsibility for NPRDC from CNR to Space and Naval Warfare Systems Command (SPAWAR).

27 Mar 88   Management control of NPRDC was transferred from SPAWAR to CNP/ Commander, Naval Military Personnel Command (NMPC). NMPC was charged with direct management of NPRDC.

12 Sep 91   OPNAV Notice 5450 disestablished NMPC and delegated BUPERS with direct
             management of NPRDC.

25 Sep 91   OPNAV Notice 5450 modified NPRDC's mission to conduct research and
             development to improve the performance of individuals, teams, and organizations
             within the Navy and Marine Corps; to provide products and services specifically
             directed at improving Department of the Navy personnel planning, testing,
             acquisition, selection, classification, training, utilization, motivation,
             organization, management, and other contemporary issues; and to perform other
             functions as directed by higher authority.

Resources

NPRDC's funding for the end of FY91 was $30.2 million. Distribution, sponsor, and appropriation of funds are shown in Figures 3 and 4.
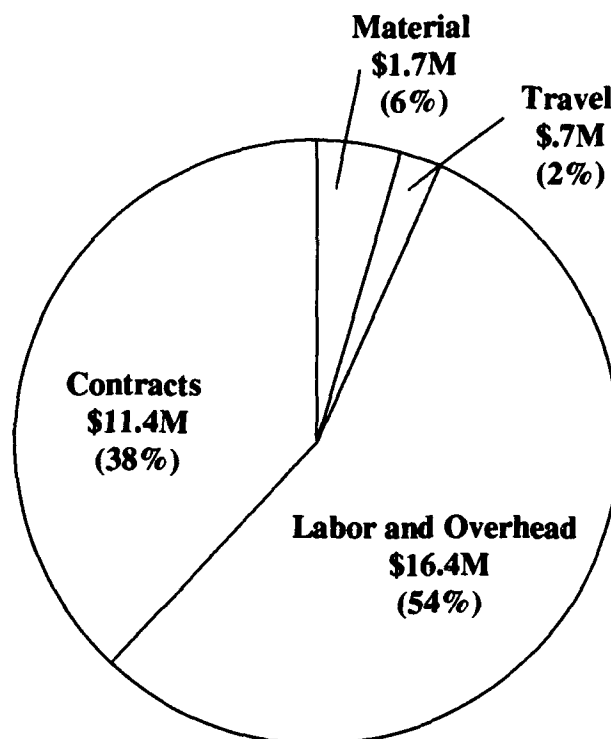
Figure 3. Distribution of funds ($30.2M, 30 September 1991).

Funding

NPRDC operates under the research, development, testing, and evaluation (RDT&E) Resources Management System. Under this system, the final fiscal responsibility resides with the
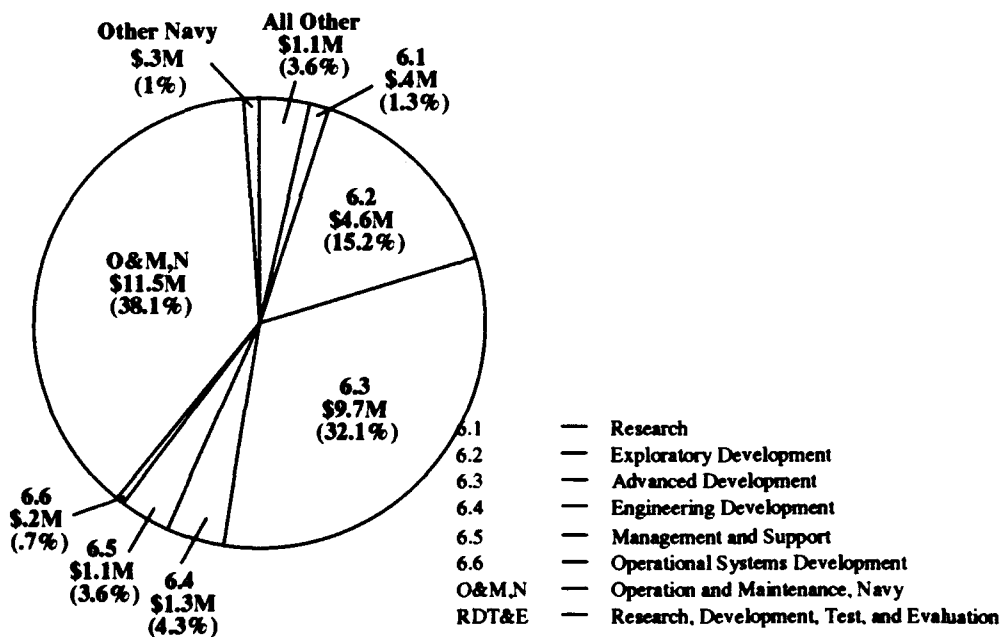
41

Sponsor

BUPERS	—	Bureau of Naval Personnel
CNO	—	Chief of Naval Operations
CNR	—	Chief of Naval Research
DOD	—	Department of Defense
NAVAIR	—	Naval Air Systems Command
NAVSEA	—	Naval Sea Systems Command
SPAWAR	—	Space and Naval Warfare System Command
USMC	—	U.S. Marine Corps

Appropriation

6.1	—	Research
6.2	—	Exploratory Development
6.3	—	Advanced Development
6.4	—	Engineering Development
6.5	—	Management and Support
6.6	—	Operational Systems Development
O&M,N	—	Operation and Maintenance, Navy
RDT&E	—	Research, Development, Test, and Evaluation

Figure 4. Funding by sponsor and appropriation ($30.2M, 30 September 1991).

Commanding Officer and certain financial responsibilities are delegated to cost center managers. The reporting procedures associated with the Resources Management System provide financial information for both internal management and higher authority.

The principal mission sponsor and prime "customer" for Center RDT&E products is OP-01/ BUPERS. Significant sponsorship also comes from the CNR, the Marine Corps, and other Navy and DOD organizations including the Systems Commands. The majority of RDT&E that the Center conducts is supported by directly funded projects. A small portion of the funds are independent research (IR) and independent exploratory development (IED). In addition, a substantial portion of research, development, and analysis consists of "reimbursables," specific problem solving efforts requested by, and supported with funding from other organizations.

Personnel

Because R&D programs at NPRDC are mission-oriented, it is essential that the research force be multidisciplinary so that early consideration may be given to alternative approaches in research endeavors. The Center's staff is creatively diverse and equipped to meet this prerequisite.

As of 30 September 1991, the staff numbered 17 military and 261 civilian personnel. Of the civilians, 173 are professional and technical personnel representing a variety of disciplines. Of the professional and technical staff, 92 percent hold advanced degrees. The military staff consists of line officers and senior enlisted personnel. The military personnel offer extensive fleet and subject-matter expertise that helps ensure the operational relevance of NPRDC's R&D endeavors. This broad personnel base allows NPRDC to maintain a highly effective, multidisciplinary team approach to its R&D.

Facilities

NPRDC is located on Point Loma in San Diego, California, with support offices in Washington, DC. The Center occupies 16 buildings under a host-tenant arrangement with the Naval Ocean Systems Center. In addition to office space for research and support personnel, the following research facilities are housed at the Center:

- **Training Research Computing Facility (TRCF)** provides general Unix-based computing services and access to the Defense Data Network for Center research and support staff. The facility is supported by the Training Technology Department and provides computational and electronic mail support for research in areas of artificial intelligence, computer-assisted instruction, cognitive science, testing, and training. The TRCF equipment suite includes two Digital Equipment Corporation VAX-11/780 computers and numerous peripherals.

- **Manpower and Personnel Computing Facility (MAPCOM)** provides general purpose IBM-based computing services for Center researchers and administrative operations. The facility is supported by the Manpower Systems Department. It is specially equipped to serve psychologists, economists, mathematicians, and computer scientists whose research requires the organization and analysis of large data files, the development of large-scale mathematical models, the design of information delivery systems, and general-purpose scientific computing. The MAPCOM features an IBM 4381/23, multiple tape drives, and over 25G in disk storage.

- **Systems Simulation Facility** serves cognitive and organizational psychologists who are concerned with the measurement of human performance, neuroscience applications in personnel readiness assessment, and motivation of people in organizations. It includes equipment of biopsychological and psychophysiological measurement.

The above facilities are supplemented by two mobile laboratories that provide R&D support at sites away from the Center, and by a large inventory of computer equipment supporting specific projects.

Research and Development Program

The R&D program at NPRDC addresses five functional areas: Manpower, Personnel, Testing Systems, Education and Training, and Organizational Systems. Within these five functional areas are 19 product lines, each of which has one or more projects.

Manpower

Develops new computer-based systems and methods for allocating manpower resources, developing personnel inventories, and distributing/assigning those inventories to improve military readiness and control costs.

- **Navy Force Management**--Designs/develops large-scale decision-support systems for managing the flow of personnel (accession, retention, promotion) to attain desired skill inventories within constraints of cost and feasibility, allocating manpower resources, and developing and executing manpower appropriations.

- **USMC Force Management**--Designs/develops systems to justify and effectively execute USMC manpower plans and policies.

- **Assignment Systems**--Designs/develops systems for improving the assignment of officer and enlisted personnel to jobs (billets) based on cost constraints, fleet requirements, individual preferences, and a wide variety of assignment policies.

- **Information Support**--Investigates and evaluates Information Resource Management (IRM) technologies for MPT applications by exploring new tools and techniques, developing prototype systems, and distributing promising technologies to functional application development efforts.

Personnel

Develops systems and procedures for recruiting, selecting, classifying, and utilizing officer, enlisted, and civilian personnel to improve performance and retention. Serves as the Chief of Naval Operations' primary personnel survey resource to coordinate and conduct attitude surveys in the Navy and Marine Corps and to develop new survey technology.

- **Recruiting Systems**--Develops market analyses, supply projections, resource management models and systems to support accession policy and recruiting objectives.

- **Women and Minorities**--Investigates issues associated with a racial-, ethnic-, and gender-mixed active duty and civilian work force.

- **Officer Career Management**--Develops and applies new technology to match officer attributes and billeting requirements in a changing environment.

- **Personnel Surveys**--Develops systems to improve the quality and timeliness of personnel survey data.

- **Training Resources Systems**--Develops computer systems to assess readiness against alternative training resource scenarios and to discover regularities in Navy MPT databases using expert system technology.

Testing Systems

Develops and evaluates systems for personnel selection and classification testing, performance measurement, and person-job matching. Serves as the lead DOD laboratory for the development of a CAT-ASVAB and the Adaptability Screening Profile Program. Manages and performs R&D and scientific support for these and other programs including the Navy portion of the Joint-service Job Performance Measurement Program and the operational paper-and-pencil ASVAB.

- **Printed Testing**--Establishes and monitors Navy enlistment qualification and school eligibility standards for the ASVAB. Develops biographical information instruments for use in enlisted personnel screening.

- **Computerized Testing**--Develops CAT-ASVAB as a replacement for the paper-and-pencil version of the battery. Includes development of new computerized ability tests which can be used to augment the battery.

- **Personnel Classification**--Develops job performance measures for use in validating selection and classification tests. Develops mathematical modeling procedures to assist in establishing recruit quality requirements and person-job matching techniques.

Education and Training

Develops training technologies to enhance personnel readiness. Employs existing and emerging technologies in the development and application of training systems to alleviate Navy training problems and to improve the Navy's operational readiness.

- **Operational Training**--Develops training programs to support specific operational weapons systems including enhancements to existing programs and application of emerging training technologies to these systems.

- **Schoolhouse Training**--Develops content specific instructional materials and processes designed to enhance the effectiveness and lessen the cost of the delivery of formal Navy schoolhouse instruction.

- **Curriculum Acquisition, Development, and Revision**--Develops, tests, and evaluates systems designed to support the development of curriculum materials. These include automated systems designed to support instructor delivered training materials and systems for computer delivered training materials.

- **Neurosciences**--Develops and evaluates technologies to assess and enhance performance and training procedures using neuroscience, neural network, and behavioral approaches. Performs R&D for improved assessment of human capabilities, including sensory and cognitive processing, skill development and retention, real-time monitoring, and on-job performance prediction.

Organizational Systems

Develops and evaluates performance enhancement and control systems for improving the effectiveness, quality, and productivity of Navy personnel and organizations.

- **Management Control Systems**--Performs needs analyses for the purpose of diagnosing problems with existing systems used for cost, quality, production control, and improvement. Determines appropriate enhancements to such systems and provides models for system development. This frequently includes design, development, and evaluation of management training for quality and productivity improvement.

- **Incentive Management Systems**--Determines feasibility, design, development, test, and evaluation of incentives in Navy organizations. This includes monetary and nonmonetary applications for individual, group, and organization. Nonmonetary types include performance measurement, feedback, goal setting, time off, suggestion systems, employee involvement, and job redesign.

- **Organizational Systems Evaluation**--Includes diagnostics of organizations, their designs, functions, and "climate" or culture. Also includes evaluation of programs that have aimed to change these factors.

Other research efforts include developing and testing innovative methods to design, administer, and evaluate management and professional training. In addition, job aids are developed and tested to determine their effects on workload accomplishment.

Fleet Liaison Office

In addition, NPRDC has set up a Fleet Liaison Office (FLO) to maintain liaison with Fleet Commands, Type Commands, Systems Commands, CNO Agencies, and R&D Centers in matters related to NPRDC's mission areas, and serves as the Center's focal point for investigating and responding to requests for technical assistance. It monitors on a continuing basis operational problems, requirements, and priorities to determine RDT&E implications, provides on-site consultative services to operational commands and performs quick-reaction studies or special projects as needed and facilitates the implementation of the Center's R&D products. Also, the FLO serves as the Center's agent for the Navy Science Assistance Program.

Publications and Presentations[3]

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Burch, R. L., Sheposh, J. P., & Morrison, R. F. (1991, January). *Officer career development: surface warfare officer retention* (NPRDC-TR-91-5). (AD-A231 303)

Cowen, M. (1991, October). *A comparison of four types of feedback during computer-based training (CBT)* (NPRDC-TR-92-2). (AD-A241 626)

Held, J. D., & Foley, P. P. (1991, December). *Validation study of armed services vocational aptitude battery (ASVAB) selector composites: Gas turbine system technician rating, electrical (GSE) and mechanical (HSM), for 4- and 6-year obligator programs* (NPRDC-TR-92-5). (AD-A244 782)

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Murphy, D. J., Tyburski, D. A., Somer, E. P., Roth, P. G., Higdon, R. S., & Newell, C. E. (1991, April). *Office of civilian personnel management survey of Navy civilian attitudes December 1989: Findings* (NPRDC-TR-91-9). (AD-A234 550)

Pugh, H. L., Parchman, S. W., & Simpson, H. (1991, March). *Field survey of videoteletraining systems in public education, industry, and the military* (NPRDC-TR-91-7). (AD-A234 875)

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Shettel-Neuber, J., Sheposh, J. P., Hayashida, C. A., Arbor, H., Cooke, R., McNulty, W., St. Clair, P. C., & Trusso, P. (1991, July) *Experimental civilian personnel office project (EXPO): Final report for nonappropriated fund sites* (NPRDC-TR-91-10).

Simpson, H., Pugh. H. L., & Parchman, S. W. (1991, October). *Empirical comparison of alternative video teletraining technologies* (NPRDC-TR-92-3). (AD-A242 200)

Sticht, T., Ellis, J. A., & Quellmalz, E. (1991, August). *Enhancing productivity in Navy schools: The use of wall posters and computer-based instruction to influence learning* (NPRDC-TR-91-11). (AD-A240 575)

Tatum, B. C., Nebeker, D. M., & Sorensen, S. W. (1991, September). *Work standards, productivity, and quality* (NPRDC-TR-91-12). (AD-A241 011)

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[3] Unclassified, public release only.

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Wetzel, C. D., & Wulfeck, W. H. II. (1991, January). *Low cost microcomputer training systems project, computer based educational software system: Final report* (NPRDC-TR-91-4). (AD-A231 711)

Administrative Publications

(1991, April). *Top 10 products for 1990* (NPRDC-AP-91-12).

(1991, July). *Project profiles* (NPRDC-AP-91-16). (AD-A240 803)

Montague, W. E., & Scheifers, C. C. (Eds.). (1991, June). *Independent research and independent exploratory development programs: FY90 Annual report* (NPRDC-AP-91-15). (AD-A240 145)

Somer, E. P. (1991, March). *Navy personnel survey program* (NPRDC-AP-91-10).

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[4] Not an NPRDC employee; however the research was supported by the Center.

Presentations

Alderton, D. L. (1991, April). *On the biology of sex differences in spatial ability: Where is the interaction between sex and college major?* Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL.

Alderton, D. L. (1991, August). *Improved measurement of perceptual speed ability through computer administration.* Paper presented at the annual meeting of the American Psychological Association, San Francisco, CA.

Chipman, M. (1991, June). *Recruiting resource allocation project.* Paper presented at the conference of the Joint Market Analysis and Research Committee, Lake Geneva, WI.

Christinaz, D. (1991, August). *CST: Electronic circuit simulator and training tool.* Presentation at the seminar of Computers in Naval Education and Training, Annapolis, MD.

Dickieson, J. (1991, August). *Paperless classroom and courseware portability projects as they relate to educational theory and technology.* Presentation at the seminar of Computers in Naval Education and Training, Annapolis, MD.

Edwards, J. E. (1991, April). *Classification in changing organizations.* Paper presented at the meeting of the Society for Industrial and Organizational Psychology, St Louis, MO.

Edwards, J. E. (1991, August). *Criterion weighting: Determining the significance of job components for full-time and part-time employees.* Paper presented at the annual meeting of the Academy of Management, Miami, FL.

Ellis, J. A. (1991, October). *Enhancing the learning environment in a Navy school.* Paper presented at the 33rd Annual Conference of the Military Testing Association, San Antonio, TX.

Federico, P-A. (1991, April) *BATMAN & ROBIN: Friendly interfaces for performance measurement.* Paper presented at the conference of the Research and Development Information Exchange, China Lake, CA.

Federico, P-A. (1991, September). *Recognition measurement: Computer-based and paper-based methods.* Paper presented at the annual meeting of the Human Factors Society, San Francisco, CA.

Federico, P-A. (1991, November). *Verbal protocols and complicated performance.* Paper presented at the meeting of the Psychonomic Society, San Francisco, CA.

Krass, I. A., & Thompson, T. J. (1991, May). *Navy fleet personnel readiness problem.* Paper presented at the Institute of Management Sciences/Operations Research Society of America, Nashville, TN

Krass, I. A., & Thompson, T. J. (1991, November). *Decomposition method for solving a large-scale model to maximize Navy unit personnel readiness.* Paper presented at the meeting of Operations Research Society of America, Anaheim, CA.

Larson, G. E. (1991, August). *The diverse correlates of mental ability: Which are central?* Paper presented at the annual meeting of the American Psychological Association, San Francisco, CA.

Larson, G. E. (1991, October). *Measurement of working memory.* Paper presented at the conference of the Neural Constraints on Architectures, sponsored by the Office of Naval Research, Iowa City, IA.

Lewis, G. W., & Ryan-Jones, D. L. (1991, October).*Event-related potential averages: How may epochs are needed?* Paper presented at the annual meeting of the Society for Psychophysiological Research, Chicago, IL.

Morrison, R. F. (1991, April). *Person centered, person job match: A career development issue.* Paper presented at the meeting of the Society for Industrial and Organizational Psychology, St Louis, MO.

Morrison, R. F. (1991, June). *What affects how quickly a new job is learned?* Paper presented at the meeting of the Military Operations Research Society, West Point, NY.

Morrison, R. F. (1991, August). *The contribution of promotability and perceptions of promotion opportunity to turnover.* Paper presented at the annual meeting of the Academy of Management, Miami, FL.

Morrison, R. F. (1991, August). *What effects how quickly a new job is learned.* Paper presented at the annual meeting of the Academy of Management, Miami, FL.

Parchman, S. W. (1991, September). *1-way vs. 2-way video: A study of training effectiveness and user acceptance,* Paper presented at the Fifth Annual Conference on Distance Education, Training and Interactive Technologies, Augusta, ME.

Parchman, S. W. (1991, September). *Program development work shop proposal.* Paper presented at the Fifth Annual Conference on Distance Education, Training and Interactive Technologies, Augusta, ME.

Pugh, H. L. (1991, August). *Training effectiveness of alternative distance learning systems.* Presentation at the seminar of Computers in Naval Education and Training, Annapolis, MD.

Ropp, G. A., & Shoecraft, M. R. (1991, May). *Improved Navy sea/shore rotation planning.* Paper presented at the Institute of Management Sciences/Operations Research Society of America, Nashville, TN.

Rosenfeld, P., Thomas, M. D., Edwards, J. E., & Thomas, P. J. (1991, August). *Gender, race, and ethnicity in Navy research.* Paper presented at the annual meeting of the American Psychological Association, San Francisco, CA.

Ryan-Jones, D. L., & Lewis, G. L. (1991, February). *Application of neural network techniques to the prediction of job performance.* Paper presented at the Workshop on Neural Networks, Cosponsored by Auburn University, NASA, and the Society for Computer Simulation, Auburn, AL.

Ryan-Jones, D. L., & Lewis, G. L. (1991, May). *Application of neural network techniques to the prediction of job performance.* Paper presented at the conference of the Research and Development Information Exchange, China Lake, CA.

Ryan-Jones, D. L., Lewis, G. W., & Blankenship (1991, October) *Vigilance decrement: Individual differences in task performance and event-related potentials (ERPs).* Paper presented at the annual meeting of the Society for Psychophysiological Research, Chicago, IL.

Ryan-Jones, D. L., & Lewis, G. W. (1991, December). *Neural network identification of individuals from brain wave patterns.* Paper presented at the meeting of Neural Information Processing Systems (Natural and Synthetic), Denver, CO.

Sands, W. A. (1991, October). *Artificial neural networks: A tool for psychologists.* Paper presented at the 33rd Annual Conference of the Military Testing Association, San Antonio, TX.

Sands, W. A. & Wilkins, C. A. (1991, October). *Artificial neural networks for personnel selection.* Paper presented at the 33rd Annual Conference of the Military Testing Association, San Antonio, TX.

Segall, D. O. (1991, November). *Subgroup differences in CAT-ASVAB equating.* Paper presented to the NATO research Study Group 15 on Computer-based Assessment of Military Personnel, Brussels, Belgium.

Stricker, L., & Alderton, D. (1991, October). *Response latency measures for a biographical inventory.* Paper presented at the 33rd Annual Conference of the Military Testing Association, San Antonio, TX.

Thode, W. F. (1991, December). *Portability: Procurement and conformance testing of complaint systems.* Paper presented at the 13th conference of the Interservice/Industry Training Systems, Orlando, FL.

Trejo, L. J. (1991, February). *Classification of ERP signals using neural networks.* Paper presented at the Workshop on Neural Networks, Cosponsored by Auburn University, NASA, and the Society for Computer Simulation, Auburn, AL.

Trejo, L. J., & Lewis, G. W. (1991, October). *ERP indices of human performance: Effects of stimulus relevance and levels of information processing.* Paper presented at the annual meeting of the Society for Psychophysiological Research, Chicago, IL.

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Wilkins, C., & Dickieson, J. (1991, July). *Using neural network technology for predicting military attrition.* Paper presented at the International Joint Conference on Neural Networks, Seattle, WA.

Wolfe, J., & Alderton, D. (1991, October). *Research on new selection tests.* Paper presented at the 33rd Annual Conference of the Military Testing Association, San Antonio, TX.

Wulfeck, W. H., & Dickieson, J. (1991, October). *The automation of curriculum development using the authoring instructional materials (AIM) program.* Paper presented at the Fleet Maintenance in the 21st Century Joint Symposium, Norfolk, VA.

Distribution List

Chief of Naval Personnel (PERS-00), (PERS-00B), (PERS-01JJ)
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